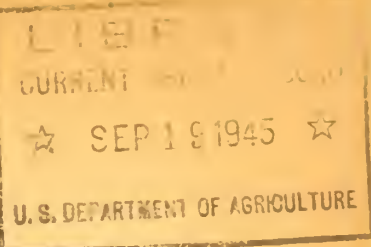


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

987
42282
4
UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.



In Cooperation with State and Federal Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING JULY 21, 1945
(Thirteenth Cotton Insect Survey Report for 1945)

Another week of rainy weather and moderate temperatures was favorable for boll weevils in the south central and coastal areas of Texas and in the States east of the Mississippi River.

New leafworm infestations were found this week in Duval, Nueces, San Patricio, Victoria and Jackson Counties, Texas. Rather heavy infestations were found in two fields and control was being used in one field in Nueces County. The first records of leafworms north of the Lower Rio Grande Valley this season are much later than usual but with favorable weather their spread may be rapid and serious damage caused/ ^{in north} Texas and other States. Cotton in the counties where the leafworms were found is approaching maturity and it is not likely growers will use control on much of the acreage. Fields of succulent late cotton are attractive to leafworms and should be watched for their appearance.

Heavy populations of plant bugs continue in Arizona and will cause serious losses unless controlled.

Bollworm damage is increasing in Texas.

BOLL WEEVIL

TEXAS: Showers in south central and coastal areas were favorable for boll weevils but in other areas of Texas conditions were generally favorable for cotton growth.

Weevil infestation counts made in 539 fields in 66 counties by all cooperators averaged 33% punctured squares or a weighted average for the State of 26%. The comparable figures for last week were 32% and 21%, respectively. Six percent of the fields examined were not infested; 18% of the fields ranged from 1 to 10%; 25% of the fields from 11 to 25%; 26% of the fields from 26 to 50%; and 25% of the fields above 50% infestation. In 7 southeastern counties the average infestation was 54%; in 14 east Texas counties, 48%; in 19 Blackland counties, 27%; in 4 Cross-timber counties, 34%; and in 8 Rolling Plains counties, 5%. Infestations are higher in the northern part of the State and extend farther westward than usual at this time of the year. Weevil control was being used on only 36 of the fields examined.

OKLAHOMA: Mr. C. F. Stiles, Extension Entomologist, reports: "The week ending July 21 was the most favorable week for cotton development during the present season. However, boll weevil infestation continues to increase over most of the State and the infestation is alarming in most counties. *** Farmers cannot afford to delay dusting their cotton now when the infestation is ten percent or more."

The infestation in 255 fields examined in 32 counties averaged 25% this week, an increase of 3% from last week. The weighted average for the State was 22%. Only 5% of the fields were not infested; 25% of the fields ranged from 1 to 10%;
(Over)

33% of the fields from 11 to 25%; 22% of the fields from 26 to 50%; and 15% of the fields above 50% infestation. In 2 northeastern counties the infestation averaged 11%; in 6 central counties, 16%; in 7 east central counties, 21%; in 3 southwestern counties, 22%; in 10 south central counties, 25%; and in 4 southeastern counties, 42%.

LOUISIANA: Only a few widely scattered showers were reported during the week and conditions were not as favorable for weevil increase as during the preceding week. Dusting is being resumed in central Louisiana after a rainy period and is also increasing in northeastern Louisiana. The supply of calcium arsenate is adequate at present. Growers are using up the unusually large stocks they carried over from last season but the stocks in the hands of jobbers and retailers are not large. Limited supplies of calcium arsenate-nicotine are available and moving rapidly. Dusting is just getting well started and if the weather continues favorable for weevils, a large proportion of cotton in northern Louisiana will need weevil control before the season is over.

Examination of 433 fields well distributed over the State showed an average infestation of 28% in comparison to 27% last week. Six percent of the fields examined were not infested; 18% of the fields ranged from 1 to 10%; 32% from 11 to 25%; 27% from 26 to 50%; and 17% above 50% infestation. There was a considerable increase in infestation in the northern third of the State.

ARKANSAS: Hot, dry weather prevailed during the week but cotton is not fruiting well. The square infestation in 178 fields in the southern third of the State averaged 14% as compared to 11% last week. No infested squares were found in 12% of the fields; from 1 to 10% infestation in 49%; from 11 to 25% infestation in 33%; and from 26 to 50% infestation in 6% of the fields. Infestations are becoming more general and the percentage of fields needing control has increased.

MISSISSIPPI: High temperatures but frequent rains prevailed in the southeastern counties, the central section of the state and in the Lower Delta. Infested squares were found in 260 of the 306 fields reported from 36 counties by all co-operators. The average infestation was 9% for all fields examined and 12% in the infested fields, or an increase of over 2% from last week. Dr. Lyle states that poisoning for weevils is needed on 21% of the 168 fields examined by State and Federal entomologists this week as compared to 9% of the fields requiring control a week ago.

Light to heavy scattered rains interfered with cultivation in the Lower Delta but conditions were more favorable and cleaning fields made good progress in the other Delta counties. An increase of 62% was noted since last week in the number of newly-emerged adult weevils observed while making square counts. Infested squares were found in 184 of the 221 fields examined in 8 Delta counties. The average percentage of infested squares was 9.3% for all Delta fields and 11% in the infested fields as compared to 5.6% and 8.4% ^{1/}, respectively, last week. No infested squares were found in 16% of the fields; from 1 to 10% infestation in 59% of the fields; from 11 to 25% infestation in 15%; and above 26% infestation in 10% of the fields. A few growers have started dusting but others are delaying until the emergence of adults is determined.

^{1/}Corrected percentages; those given in last week's report were in error.

ALABAMA: W. A. Ruffin, Extension Entomologist, wires: "Weevil infestation running high in area visited last week. Infestation counts made in five fields in Dallas County averaged 58 percent. Supply of calcium arsenate adequate."

FLORIDA: Professor R. W. Harned reports that weevils are very scarce in fields near Gainesville in northern Florida. The hot, dry weather during April, May and most of June practically eliminated the early weevils and, although July has been very rainy and humid, infestations have not built up.

GEORGIA: Because of almost daily rains it has been difficult to obtain effective weevil control from dusting, particularly in the southern and eastern sections of Georgia. Much cotton in the southern section is almost without bolls due to weevil damage, with second brood damage yet to reach its peak.

Weevils were found in all but 2 of the 238 fields examined in 79 counties. The average infestation this week was 32.6% as compared to 26.7% last week. The average infestation for 33 fields in the southeastern section of the state was 28%; for 113 fields in the southwestern section, 42%; for 65 fields in the northeastern section, 22%; and for 27 fields in the northwestern section 26% punctured squares.

SOUTH CAROLINA: Moderate temperatures with cloudy showery weather in all sections of the state were extremely favorable for weevil development. Rain-fall has been excessive in some of the lower coastal counties but some central and lower Piedmont counties are still deficient in rain. Second-generation weevils are emerging in large numbers. A critical situation is developing in the young cotton in upper Piedmont and heavy weevil infestations are developing in most fields. Considerable boll damage is occurring in the lower counties. Some of the better farmers are dusting but most growers are making no effort to control weevils.

The average infestation was 24.2% in 283 fields examined this week in 39 counties, in comparison to 21.7% last week. Four percent of the fields examined were not infested; in 27% of the fields the infestation ranged from 1 to 10%; in 35% of the fields from 11 to 25%; in 20% of the fields from 26 to 50%; and in 14% of the fields above 50%.

NORTH CAROLINA: Abundant rains occurred over the state which were ^{needed} in some sections but not in others.

Examinations in 106 fields in 17 north central and northeastern counties averaged 6% weevil-punctured squares. In 22% of the fields examined this week no infested squares were found; in 60% of the fields from 1 to 10%; in 12% from 11 to 25%; and in 6% of the fields above 25% infestation. This section of the state has been drier and the weevil infestation is lower than in the southeastern counties.

VIRGINIA: Dr. Grayson reports 0%, 1%, 2%, and 4% infested squares in 4 fields examined near Holland. Plenty of rain and cloudy weather this week.

COTTON FLEA HOPPER

TEXAS: Very little increase from past weeks. The infestation is generally low but considerable damage is being caused in some fields. Examinations in 561 fields averaged 7.6 flea hoppers per 100 terminal buds. No flea hoppers were found in 24% of the fields; from 1 to 10 in 52% of the fields; from 11 to 25 in 19%; and more than 26 per 100 terminal buds in 5% of the fields.

OKLAHOMA: Flea hopper infestation is threatening in Choctaw, Sequoyah and Haskell Counties. In 253 fields examined in the State the average was 8.2 flea hoppers per 100 terminal buds as compared to 6.7 last week. None were found in 30% of the fields; from 1 to 10 in 38%; from 11 to 25 in 27%; and (over)

more than 25 per 100 terminal buds in 5% of the fields.

LOUISIANA: Infestations are becoming general in the Red River Valley in north-western Louisiana.

ARKANSAS: Flea hoppers and Lygus bugs are reported scarce in Pulaski and other counties in the Red River Valley of Arkansas, but some calcium arsenate-sulfur mixtures are being used.

OTHER PLANT BUGS

Salt River Valley, Arizona: In many cotton fields a decided increase in insects was noted and populations were high in all fields observed this week. Dusting is being used on a large scale, although some delays were caused by unfavorable weather.

Sweepings in the Goodyear area averaged 23 injurious insects on stub cotton and 44 per 100 net strokes on plant cotton, as compared to 33 and 22, respectively, last week. In the Mesa section there was an average of 9 injurious insects per 100 strokes, or little change from last week. In the Buckeye area sweepings ranged from 10 to 80 injurious insects per 100 strokes. At Sacaton the populations in the experimental plots were reduced from 12.7 last week to 3.7 this week on the dusted plots. At Litchfield the populations of plant bugs in the experimental plots increased from an average of 18 before dusting last week to 48 on the dusted and 53 per 100 sweeps on the check plots. Several alfalfa fields in the near vicinity were recently cut and may be responsible for the heavy increase. Dr. Roney, Extension Entomologist, advises growers: "The injurious insect populations have reached the point where dusting will pay in practically all cotton fields in the Salt River Valley. Several applications (probably 4 or 5 or more) will be required due to heavy migrations from alfalfa. Do not be discouraged if after the first applications the populations do not drop suddenly. The insects will continue to migrate to cotton and, too, the increase in yields from proper dustings have not always correlated with the decrease in insects."

Santa Cruz Valley: Very little change since last week. Populations continue low with the cotton flea hoppers comprising a smaller proportion of the injurious insects than normal.

Pinal County, Arizona: Populations are erratic, averaging about 6 per 100 strokes in the vicinity of Coolidge and from 0 to 23 near Casa Grande. Lygus spp. predominates and many fields in this county need dusting.

Graham County, Arizona: Insect populations are increasing and have now reached the danger point in many fields. Sweepings from a number of fields contained some stinkbugs.

Dona Ana County, New Mexico: Sweepings made in 36 fields showed a range of from 0 to 11 injurious insects per 100 net strokes, almost entirely Lygus spp., although an occasional stinkbug was collected. The highest populations were in cotton fields near sugar beet seed stubble fields. The fields were comparatively free of miscellaneous insects.

El Paso Valley, Texas: In 38 fields of cotton Lygus and other plant bugs ranged from 0 to 4 per 100 sweeps, except in one 40-acre field adjacent to grazed alfalfa, that averaged 30 per 100 sweeps.

MISCELLANEOUS INSECTS

Bollworms are increasing rather rapidly in many fields in Texas. They were reported present in 51 counties this week, in damaging numbers in scattered fields throughout central and south Texas, and a general infestation with dusting starting for control in the Pecos Valley. Bollworms are also present in practically all fields in the El Paso Valley and damaging some fields.

Aphid infestations are still generally low but are beginning to increase.

Squares and stems of undusted cotton heavily infested with aphids were observed at Tallulah, Louisiana.